

to establish the degree of disruption to the Amateur Service that would result if all or part of the spectrum was removed from the Amateur Service. The Amateur Service has had a number of its allocations reduced or eliminated in recent years, and it was the specific intention of Congress that amateur uses in shared government bands not suffer from the reallocation process ordered by the Reconciliation Act. The Commission cannot, consistent with the Reconciliation Act, reduce the allocation for amateurs at 2.4 GHz in implementing NTIA's final reallocations. Nor can it diminish the availability of the frequencies by adding inconsistent non-government sharing partners. The Amateur Service has, in the past ten years, seen the deletion of the amateur allocation at 2310-2390 MHz, a loss of fully 80 MHz of spectrum (which is not at all usefully deployed for aeronautical flight test telemetry). It has also seen the reallocation of 220-222 MHz, 420-430 MHz in certain areas of the country, and currently is being threatened with a de facto loss of utility of the 902-928 MHz band, through the imprudent addition of incompatible uses there. The same is true of the 449 MHz band in certain areas. The constant winnowing of amateur VHF and UHF allocations in recent years has resulted in a steady migration of specialized amateur uses, to the bands above 928 MHz. For the Commission to delete, or render less useful, any portion of the 2.4 GHz allocation would be unconscionable, given its past allocation decisions.²⁸

²⁸ It bears reiteration that the continued availability of the entire 2300-2310 and 2390-2450 MHz allocations for amateur use has been touted by the Commission as a basis for prior reallocation

19. The League is not in any position at the present time to discuss the compatibility of any specific commercial use of the 2.4 GHz segments with amateur uses, since no specific user has come forth with any technical compatibility showing, or even a discussion of technical operating parameters. Indeed, it is the obligation of NTIA under the Reconciliation Act to conduct such a study before itself making a final reallocation decision. Given the unlikelihood of that in view of the mandatory reallocation timetable, it is incumbent on the Commission to determine whether any commenter which is the proponent of a new service adequately establishes the compatibility of its proposed use with existing amateur uses. As discussed above, the only specific user which has even attempted such a showing is the In-Flight Phone Corporation. Even In-Flight, however, has not submitted any specific sharing plan for evaluation, and it is not possible to determine how its service would impact existing Amateur and Amateur-Satellite Service facilities. It would certainly, for example, not be possible for any such service to coexist with amateur weak-signal operations which are prevalent in the 2300-2310 MHz band in the same geographical areas. The compatibility between amateur uses and commercial uses has, therefore, not been established. However,

decisions. In Docket 87-14, for example, the FCC, based in large part on the Commission's assertion (during Congressional hearings and elsewhere) that the 220-222 MHz allocation represented but a small portion of the amateur allocations useable for short range communications, and citing the continued availability of the 2300-2310 and 2390-2450 MHz bands, reallocated the 220-222 MHz segment for land mobile uses.

given the variety of important amateur uses of all of the segments identified by NTIA for reallocation, it is apparent that these bands cannot sustain much additional commercial use without significant disruption of existing and near-term amateur operations in the band.

IV. Conclusions

20. From the foregoing, it is apparent, as the Commission itself has already determined, that the utility of the 2.4 GHz segments for additional uses is minimal. NTIA, consistent with its obligations pursuant to, and the spirit of, the Omnibus Budget Reconciliation Act, should identify, from the alternatives listed by the Commission in the FCC Report to the Secretary of Commerce, replacements for the 2390-2400 and 2402-2417 MHz segments, as these do not meet the criteria for reallocation under the Reconciliation Act. The bands already include existing non-government users, and the requirement of protection of amateur uses in the band is a strong limiting factor on any accommodation of new technologies. NTIA was incorrect in its assumption that amateur needs can be accommodated at 2417-2450 MHz, and the Commission has acknowledged the error in its Report to the Secretary of Commerce on the Preliminary Spectrum Reallocation Report.

21. Overall, the Commission was correct in stating in the FCC Report to the Secretary of Commerce that several factors "hamper the possibilities for productive non-government use of these (2300-2310 MHz and 2390-2400 MHz) bands." Nor is it merely the adverse

effect on amateur radio that led to this conclusion. The Commission noted that the 10 MHz-wide segments are too small to support new services. Furthermore, these bands are not contiguous, nor are they contiguous with the 1850-2200 MHz band that the Commission has allocated for emerging technologies. Non-contiguous frequencies result in multiple-band equipment that costs users approximately 25 percent more than equipment operating in a single band. It is therefore not apparent that combining these bands with emerging technologies spectrum will be economically feasible.²⁹ Use of these segments is also limited by the need to protect government uses in adjacent bands.³⁰ The Commission, however, noted that the "largest factor" affecting future use of these bands is the existing availability thereof for amateur operation. It agreed that there is "substantial likelihood" that reallocation of 2300-2310 and 2390-2400 MHz to commercial or local government use "could cause serious disruption to Amateur Service use of these bands." This conclusion is correct. The existing use and character of the bands are completely inconsistent with additional non-government allocations therein.

22. As to the 2402-2417 MHz segment, the Commission has both Amateur Radio and Part 15 manufacturers to accommodate. Only the Amateur Service has an allocation status in the band. It is the

²⁹ See, the FCC Report, at pp. 16-17, citing the comments of the Telecommunications Industries Association on the Preliminary Report.

³⁰ Id., at 17.

only specific service which is required to be protected under the Reconciliation Act. Nonetheless, Part 15 users have had, since the Part 15 rewrite in 1989, a reasonable expectation that the products that they have developed which operate on those frequencies would be marketable, and that purchasers of the products may operate them without suffering destructive interference. The band is specifically intended for higher-powered Part 15 devices,³¹ and manufacturers have had time to develop both spread-spectrum and other consumer electronic devices which operate in the band. This, and the presence of amateur and ISM devices in the band, caused the Commission to properly conclude that "this band provides the least potential for providing spectrum for new non-Government services," and that "(c)onsidering the potentially adverse effects on the amateur radio service and on use of the band by devices operating under Part 15, as well as the difficulties in using this band because of the amount of noise from ISM devices, we believe that reallocation of this band presents less value to the private sector than any other band identified for reallocation in the Preliminary Report."³²

23. It is unlikely that any new services could be placed in the 2.4 GHz segments. It is recommended that the Commission simply elevate the Amateur Service to primary in the 2300-2310, and 2390-2417 MHz bands. To do so would be to accommodate future amateur

³¹ See, 47 C.F.R. §§15.207, 15.209.

³² FCC Report, at 18, 19.

spectrum needs, and to replace that which has been either reallocated in recent years or which, for the Amateur Service, has suffered diminished capacity due to incompatible sharing. The Amateur Service offers distinct and proven benefits to the public, and the increased utility of the band for the Service from a primary allocation will provide additional incentive for public service activities and refinement of new communications technologies. At the same time, the Commission will be reaffirming its support of the Amateur Service, all in compliance with the Reconciliation Act.

24. If the Commission is intent upon adding non-government services to any of the segments, it cannot do so without significant compatibility study. The variety and volume of existing and near-term amateur uses of the segments make any compatible sharing difficult, if not impossible, and any service to be added should be a specific service, which is capable of advance coordination on a nationwide basis. These allocations are absolutely unsuited to any competitive bidding assignment plan, and an open allocation for fixed and mobile services is completely incompatible with continued amateur sharing of the bands. If any sharing with additional non-Government users is to exist, significant portions of each of the bands must be reserved for primary amateur use.

Therefore, the foregoing considered, the American Radio Relay League, Incorporated respectfully requests that the Commission not make any additional allocations in the 2390-2417 MHz band. Instead,

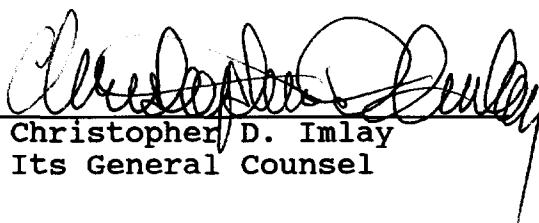
it should grant the Amateur Radio Service and Amateur Satellite Services primary allocation status in that band; and the League further requests that the Commission continue to work with NTIA to find alternative spectrum for reallocation, other than 2300-2310, 2390-2400, and 2402-2417 MHz, which would be in compliance with the specific terms of the Omnibus Budget Reconciliation Act.

Respectfully submitted,

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